



Improving sustainability in coffee and cocoa



Dutch stakeholders join forces to improve sustainability in coffee and cocoa sector



In 2010, a range of public and private actors, civil society organisations, research organisations and stakeholders in the cocoa and coffee sectors signed letters of intent aimed at increasing the sustainability of imports into the Netherlands. The goal was to ensure that 50% of the beans used in cocoa products and 75% of coffee beans would be certified as sustainable by 2015.

A complex challenge

These goals were not set lightly and no one underestimated the challenge ahead. The cocoa and coffee chains are characterised by a large volume of beans supplied by many small producers in developing countries. The sheer number of suppliers involved and the difficulties involved in certifying the beans

bought from these smallholder farmers mean that improving sustainability in the coffee and cocoa sectors is a complex matter.

To certify the sustainability of the sector, we must have knowledge about how the technical aspects of the chain – traceability, management & control and chain configurations – affect sustainability. As sustainability is strongly linked to productivity and the use of agricultural inputs, particularly fertilisers and water, many of the voluntary sustainability standards aim to improve productivity and the efficiency of input use. >>

reading
guide

introduction

colophon

Action-oriented research

More research was clearly needed in order to gain a better insight into more effective and efficient ways of improving the sustainability of cocoa and coffee beans. In 2012 Wageningen University & Research took the lead in the design, coordination and implementation of an action-oriented research programme. The aim was to support the stakeholders united around the two letters of intent in reaching their goal of a significant rise in sustainable coffee and cocoa consumption in the Netherlands by 2015.

This project was made possible by the financial support of the Dutch Ministry of Economic Affairs, which gave a strong signal of support for both the research concept and the goal of the letters of intent. Wageningen University & Research worked with partners from organisations directly involved in the initiatives – the Sustainable Trade Initiative (IDH) and indirectly the ISEAL Alliance, UTZ Certified, Jacobs Douwe Egberts, the DE Foundation and the Royal Dutch Coffee and Tea Association – as well as other research institutes, most notably the Royal Tropical Institute (IT) and CIRAD, the French agricultural research centre.

Innovative efforts

Under the umbrella of the Dutch government's innovative 'Top Sector' policy, the project 'Improving the sustainability of Dutch cocoa and coffee imports: Synergy between practice, policy and knowledge' was ran from 2012 to 2015. Scientists, business experts, government agencies and support partners spent four years deploying action-oriented research to improve the sustainability of cocoa and coffee imports to the Netherlands.

The project addressed knowledge needs in relation to impact assessment, the upscaling of services delivered to farmers, knowledge sharing and information systems. Below we indicate several key results, with more being explored later in this document:

- Supporting the development and implementation of impact assessment in monitoring and evaluation. Examples are our contributions to the [Living Wage Income Methodology](#) and a study on [the role of training in enhancing sustainable coffee production in Vietnam](#).
- Creating models to upscale service delivery for sustainable coffee and cocoa. This [article on upscaling services to cocoa and coffee farmers](#) is an excellent example.
- Facilitating the embedding and consolidation of strategic research in public-private partnerships. KIT and Wageningen University & Research contributed to [Cocoa CONNECT](#), the knowledge portal for sustainable cocoa and we helped [design a strategic research agenda](#).
- Contributing to information systems for credible, transparent and evidence-based impact reporting. Wageningen University & Research gave important input to the [ISO-CEN-NEN Sustainable Cocoa Standard](#) and [monitoring the Dutch letters of intent for coffee and cocoa](#). >>

What's next?

The overall results of the project are still being published and the fruits of our work will gradually become clear as the research activities are translated into practice. While Wageningen University & Research has made a significant overall contribution, as a future-oriented organisation we are already looking at ways to take things further.

While the consumption of sustainable coffee and cocoa has been growing steadily, coffee and cocoa supply chains have a long way to go to become fully economically, socially and environmentally sustainable. As Dr. Fédes van Rijn, who took over the leadership of the project in early 2016 from Dr. Verina Ingram explains, more work is clearly required.



"There is a need for impact measurement in complex interventions: which lessons did we learn in terms of methodology and how can we translate these into improved theories of change for the different stakeholders involved? Similarly, while a lot of work has been done in the area of improving service delivery to producers, there is often still no clear business case. There is a need for more research to identify these cases and the conditions under which they arise.

"Another vital requirement is to create space to embed and consolidate existing evidence in existing projects and programmes aimed at enhancing sustainability. Moreover, cocoa and coffee farmer clustering has to be taken to the next level in order to support different value chain actors in better matchmaking between purposes and target groups.

We have learned a lot but we are not there yet. Further effort is required by all stakeholders and we welcome contact with parties interested in taking this initiative to the next level."

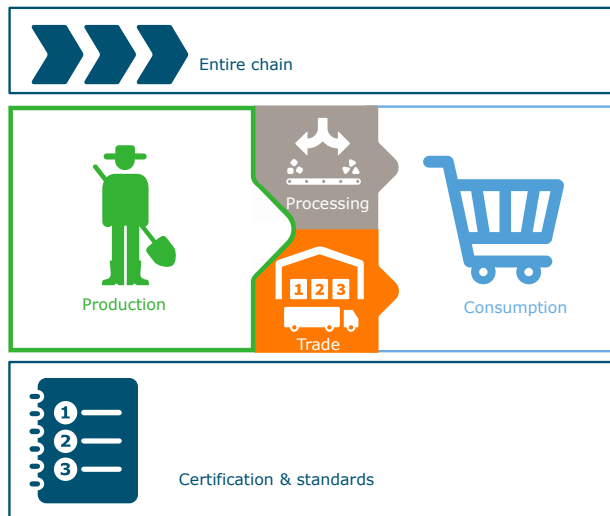
This document gives an overview of the contribution made by various groups within Wageningen University & Research to reaching these goals, together with other knowledge institutes, industry, NGO and certification standards partners.

We present our contributions in this document per value chain:



Reading guide

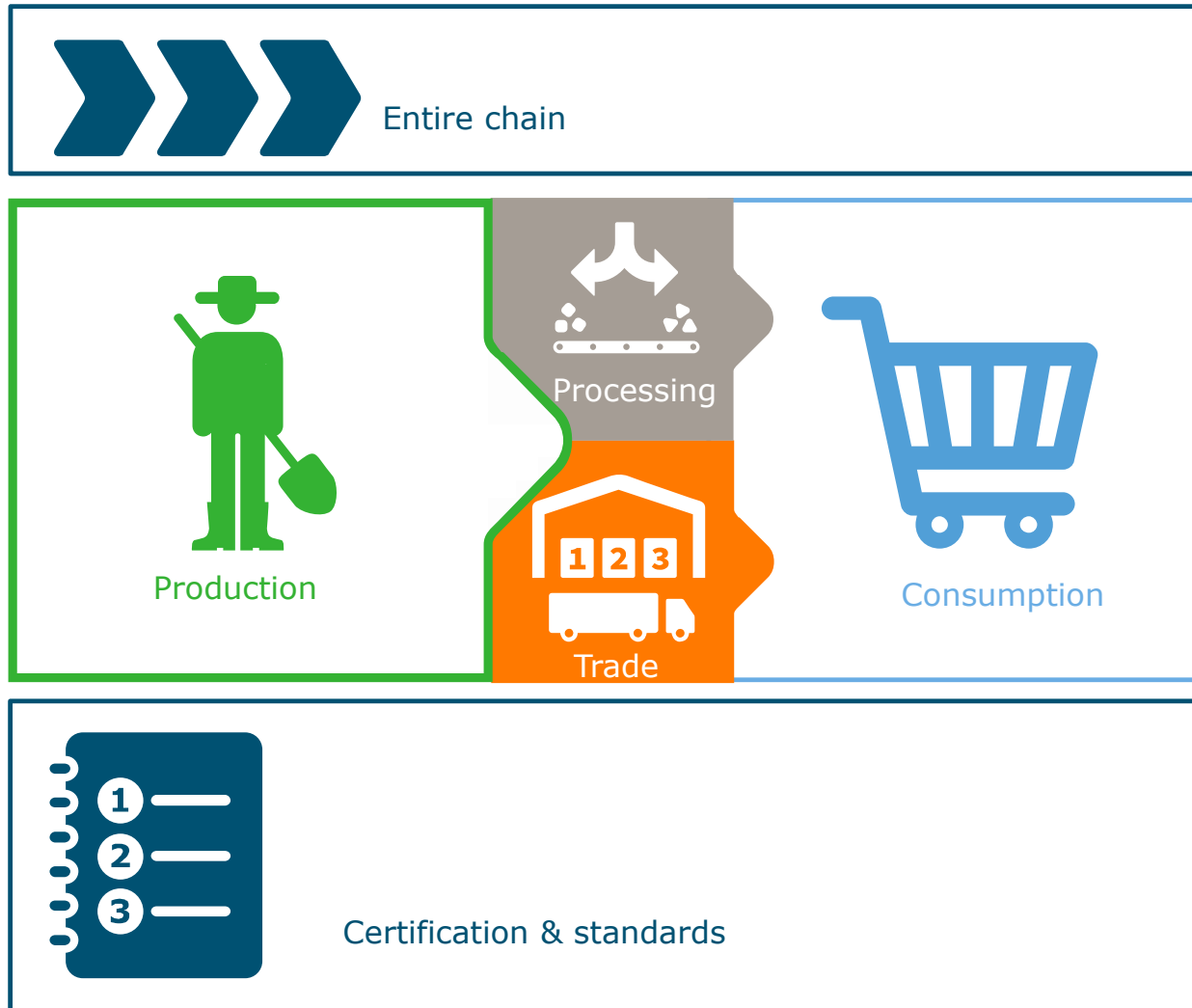
In this clickable pdf we present our contributions per value chain. You can navigate through the document by clicking on the different icons presented in the visual chain below (see example below). Click on 'cocoa' or 'coffee' at the top of each page to go to one of these chains. By clicking on 'HOME' at the top right corner of each page you can return to the homepage. In addition, you can navigate to the different sections within the chain by clicking on the desired section at the bottom of the page (such as 'production'). Finally, it is also possible to scroll through the document by clicking on 'previous page' or 'next page'.





Sustainable
cocoa chain

Sustainable cocoa chain



The overall chain



Cocoa CONNECT Worldwide

Cocoa CONNECT is a knowledge platform for sustainable cocoa, partly funded by the cocoa and coffee top sectors project. The objective of this digital platform is to support cocoa research and knowledge sharing, by putting knowledge for sustainable cocoa in the public domain. The website and social media channels support conferences, such as the World Cocoa Conference, Chocoa and the Origin Chocolate Event and help to inform different audiences on how different stakeholders contribute to a sustainable cocoa sector. In 2016, cocoa CONNECT has a total of 850 documents being uploaded, around 5.000 likes on facebook, and 1700 followers on twitter.

2012-2016 | Anna Laven, Verina Ingram [Chocoa](#) | [CocoaConnect](#)

Smallholder performance measurement report Worldwide

Wageningen University & Research contributed its time, knowledge and expertise to a report entitled 'Towards a shared approach for smallholder performance measurement'. This presents a framework of indicators for measuring farm-level sustainability in smallholder agricultural supply chains. These indicators are proposed primarily in the context of performance measurement, but can also be useful for more in-depth impact evaluation studies. The proposal does not aim to produce a single common set of indicators, but rather to use the same indicators when asking the same types of questions at the farm and household level. The authors argue that using the same indicators when asking the same questions in smallholder supply chains will increase comparability across data collection efforts and ensure that the community is building on a common understanding of how to gather credible, affordable and useful data in smallholder chains.

2016, Verina Ingram, Simone van Vugt, Yuca Waarts [Read more](#)

Studying the true price of chocolate *Worldwide*

The Wageningen University & Research article 'The true price of chocolate?' indicated that chocolate prices generally do not incorporate all of the environmental and social externalities linked to the production, processing and transport of ingredients such as cocoa and sugar. Furthermore, prices do not reflect the benefits of non-conventional production and alternative modes of governing supply chains. Most costs are incurred at farm level, although the manufacturing of ingredients and creating of end products such as chocolate bars also comes at a cost to nature and society.

As corporate and consumer social responsibility has moved up the business, political and social agenda, business cases are being made to change the status quo. An interview with Tony Chocology provides examples of how their prices are starting to reflect environmental and social as well as economic costs. The study shows how identifying and agreeing how to measure both costs and benefits can aid decisions about who bears such externalities, and where and how.

2015 | Verina Ingram [Read more](#)

Contribution to ISEAL Research webinar series *Worldwide*

Making international supply chains more sustainable is one of the ways in which rural development can be boosted for smallholders. One very crucial question customers and society at large are facing is: what differences do standards make? An ISEAL webinar on the impact of sustainability standards on smallholders was held on 7 April 2016. It presented evidence from a range of research and evaluation studies that have been conducted in the banana, cocoa, coffee, tea and avocado supply chains to answer this question. The team from Wageningen University & Research also shared their insights on the methodology and design principles that they think are needed to guide impact evaluations in this field of work.

2016 | Fédés van Rijn, Yuca Waarts [Read more](#)

Advisory Board for the Chocoa Trade Fair & Conference *Worldwide*

KIT and WUR act as members of the Advisory Board for the Chocoa Trade Fair & Conference, since 2014. The Chocoa Festival, including the Trade Fair and Conference has become a tradition. It offers a unique multi-stakeholder platform for discussions on quality and sustainability, and helps to establish linkages between cocoa producers and potential buyers of sustainable cocoa. Chocoa aims to contribute to stimulate the production and consumption of sustainable cocoa, and to share information on these topics with all stakeholders.

2016 | Anna Laven, Verina Ingram [Chocoa | CocoaConnect](#)

Scientific article on impact monitoring experiences and methods *Worldwide*

Sustainability standards and certification schemes promoted as a market-driven instrument for realising development impacts receive public funding. As a result, companies, NGOs and supporting donors and government agencies want to know if their ambitions have been fulfilled. The tendency is to commission household surveys to assess the net effects of certification in areas such as poverty, productivity and food security.

In 2014, scientists from Wageningen University & Research contributed an article entitled 'The triviality of measuring ultimate outcomes: Acknowledging the span of direct influence'. Funded by the project, this study argued that, rather than trying to measure precise net effects on farmer income, research should focus on detailed measurements of more immediate outcomes in terms of knowledge and the implementation of good agricultural practices.

Contribution analysis was proposed as an overall approach to verify the theory of change, combining survey-based net-effect measurement of these immediate and intermediate outcomes with less precise, lean monitoring of indicators to verify the contributory role of outcomes that are outside the span of direct influence, such as household income and poverty alleviation.

2014 | Giel Ton, Lan Ge, Sietze Vellema [Read more](#)

Developing a strategic research agenda for sustainable coffee and cocoa

Worldwide

This Wageningen University & Research project in 2014 culminated in the presentation of the results of a survey to develop strategic research agendas for sustainable cocoa and coffee, both in Wageningen and internationally. Research into coffee and cocoa is currently carried out by a large number of organisations, with different objectives, modes of financing and levels of openness and willingness to share methodologies and results. Much of their research addresses concerns about the availability of sufficient volumes of coffee and cocoa of desired quality, which in turn leads to concerns about productivity, farmer livelihoods, climate change adaptation, pest & disease control and the like.

There is a clear need to improve the efficiency of the research process and exchange of results due to the presence of gaps and overlaps, as well as the use and dissemination of its results. The priority research themes to emerge were:

1. Vulnerability and productivity,
2. Diversity and sustainability of production,
3. Market transformation and transparency,
4. Quality and new business models,
- and 5. Service delivery and concerted action.

Project partners have since collaborated with ICCO, the World Cocoa Foundation and COPAL to inventory the cocoa research community, including a LinkedIn [International Cocoa Researchers Group](#), meetings at the Third World Cocoa Conference and the [ECA Cocoa Conference](#) in 2016, and plans for a dedicated international cocoa research event in 2017.

2014, 2016 | Verina Ingram, Don Jansen, Lucas Judge [Read more](#) [Read more: PDF](#)

Nothing like chocolate film

Worldwide

Wageningen University & Research scientist Verina Ingram gave a pre-film introduction and led a discussion about sustainable cocoa and its links with the Netherlands at the Heerenstraat Theatre in Wageningen. The movie [Nothing Like Chocolate](#) traces the growth of Mott's cooperative, exposing the practices and politics of how chocolate has evolved from a sacred plant to 'a sacred plant to corporate blasphemy' in many parts of the world. Governments around the world, beholden to multinationals, sell cocoa for export at the lowest possible price. Industrial chocolate dominates taste buds and the market. Threatened by boutique producers such as Grenada Chocolate Company, large global companies work hard to buy them up.

2014 | Verina Ingram [More information is available upon request from Verina Ingram](#).

Costs and benefits of certification

Worldwide

This research by Wageningen University & Research and Kuit Consultancy examined the costs, benefits and impacts of certification and verification schemes on smallholder coffee, cocoa, cotton and fruit & vegetable farmers and their livelihoods. It includes a literature review and break-even analyses.

2014 | Yuca Waarts [Read more](#) | [Chocoa](#) | [CocoaConnect](#)

Production



Living Wage and Living Income methodology Worldwide

The Living Wage Income Methodology builds on the ISEAL Global Living Wage Coalition's work to establish a common methodology for Living Wage Benchmarks. The Coalition assesses how different organisations measure actual farmer and household incomes through farmer surveys, baseline studies and secondary data. A parallel topic are various modelling approaches to understanding the relative impact on household net income of changes in key variables such as productivity, decreased cost of inputs, farm size and crop diversification. Wageningen University & Research's Verina Ingram contributed to the aim of jointly developing a living income methodology in 2015 during the living wage training, the living income workshops and various webinars.

2016 | Verina Ingram [Read more](#)

Article on upscaling services to cocoa and coffee farmers Worldwide

Many smaller coffee and cocoa farmers are struggling to keep their heads above water. To improve their living conditions and make cultivation more environmentally friendly, targets related to sustainable production have been set in the Netherlands. One way to reach these targets is by upscaling and improving related services. This case study by Wageningen University & Research looked into the types of services which can be distinguished, the effect of the various types of services, and the ways in which these services can be upscaled by examining 41 international and local traders and cooperatives to cocoa and coffee farmers in Ivory Coast, Ghana, Cameroon, Indonesia, Nicaragua, Costa Rica and Honduras.

Four different models were found to be commonly used: cooperative, franchise, public and captive. The delivery of services can be detached from obligations to

buy beans and still result in benefits to farmers, cooperatives and buyers. All models appear to result in a more consistent and higher bean supply for the provider, improved quality, increased certification levels and better access to markets, with no model emerging as the most beneficial. Whether farmers are grouped and, if so, the size of the group appear to be important factors for effective delivery, with groups of between 28 to 35 farmers being the preferred option. The average period for investments is three years and ensuring their continuity through long-term investments in service delivery was shown to be important.

2014 | Verina Ingram, Anna Laven, Fédés van Rijn, Lucas Judge, Don Jansen and Marije Boomsma [Read more](#)

Supporting the International Cocoa Farmers Union Worldwide

In February 2015, Wageningen University & Research hosted the inaugural meeting of the International Cocoa Coffee Farmers Organisation (ICCFO) in The Hague. A lunch with practitioners and scientists was organized to which scientists, standards agencies and policymakers were invited. One of the results of this collaboration was that several further meetings were organised with ICCFO to support the development of a database for farmer organisation members. Wageningen University & Research has since provided advice to the Union on their plans and knowledge and data sharing strategies.

2015 | Verina Ingram, Lucas Judge, Enrique Uribe Leitz [More information on the content of this meeting and its results are available upon request from Verina Ingram](#)

Presentation on key issues in monitoring and evaluation *Indonesia*

This presentation by Wageningen University & Research scientist Giel Ton evaluated the impact of development policy in Indonesia. It shows some of the key issues in monitoring and evaluation of traders' support for farmers using an example from Sulawesi. Key findings were that immediate outcomes need to be monitored with indicators that help to build and adjust the specific intervention theory. Measuring intermediate outcomes is informative for the benchmarking performance of the intervention and a plausible storyline needs to be built to assess the contribution of traders' support to ultimate outcomes such as poverty reduction or increased yields.

2013 | Giel Ton [More information on the content of this meeting and its results are available upon request from Fédés van Rijn](#)

Report on the impact of cocoa sustainability initiatives and certification *Ghana & Ivory Coast*

In 2008, various value chain partners in Ivory Coast and Ghana adopted the UTZ Code of Conduct and became UTZ-certified, enhancing sustainability in the cocoa supply chain. As part of the certification programme, cooperatives receive training on farm management and organisational capacity building. The baseline reports and subsequent brochures compiled by Wageningen University & Research painted a picture of the situation on farms in Ghana and Ivory Coast. They provided information about how the UTZ-certified cocoa programme in Ivory Coast and Ghana helps farmers increase their knowledge and use good agricultural practices in line with the code. The follow-up study conducted in Ghana in 2015 provided insight into the impact of UTZ certification on cocoa producers in Ghana from 2011 to 2014. The lessons learned from these results have since been used to improve the quality of [UTZ's](#) and [IDH's cocoa programmes](#), and form part of the [UTZ impact resource library](#).

2015 | Verina Ingram, Yuca Waarts Ivory Coast: [Brochure](#) | [Report Ghana Report](#) | [Appendix](#)

Contributing to ISEAL Alliance session on sustainability *Worldwide*

Voluntary sustainability standards are one of many different initiatives which aim to improve the livelihoods of smallholder farmers. While the body of evidence on the impact of standards on farmers continues to grow, the question arises as to whether standards are sufficient on their own. How are standards being adjusted and how are other supply chain actors changing their thinking about the actions, actors, and collaboration needed to make a difference for farmers? Wageningen University & Research scientist Verina Ingram took part in the ISEAL Alliance Impacts Challenge session in 2015, which concluded that impact evaluations have been useful for both management and learning purposes.

2015 | Verina Ingram [Read more](#)

Establishing a transformational agenda for cocoa production *Ghana & Ivory Coast*

Organised by the International Cocoa Organization prior to the opening of the World Cocoa Conference 2016, the session entitled 'The future of production: A Transformational Agenda for Cocoa Production' was an opportunity for those involved in all stages of the cocoa chain from around the world to share experiences and facilitate the harmonisation of the positions of cocoa producers. Wageningen University & Research scientist Verina Ingram contributed to the session.

The panel session on 'Mapping Cropping Systems and Farming Practices' discussed cocoa farm models/cropping systems and farming practices, and compared large commercial estates with smallholder family farming. Key recommendations included the need to develop and share the cost-benefit analyses of different integrative farm models which would incorporate both intensification (better use of existing land) and diverse farming systems, as well as the need for demonstration ('seeing is believing') to promote change in farming models. This can be achieved by facilitating farmer-to-farmer exchanges on farming models so they can choose the best model for their needs, situation and capacities. Physical exchanges and the facilitation of ICT are strongly recommended. The session contributed to the Bávaro Cocoa Declaration.

2016, Verina Ingram [More information on the content of this session and its results are available upon request from Verina Ingram](#)

Evaluating the impact of certification and wage labour in cocoa Ghana

The aim of this impact evaluation project by Wageningen University & Research was to assess the added value of UTZ certification for wage workers on cocoa farms in Ghana, in particular the connection with labour demand, working conditions and wages, including a characterisation of the workers based on socio-demographic indicators. Major differences in working conditions were observed between UTZ-certified and non-certified farms. In the communities where UTZ certification predominates, farmers tend to be more organised and there is a stronger sense of community. The UTZ-Solidaridad programme provides weekly trainings where farmers meet to discuss good agricultural practices. While these farmers and workers were provided with protective clothing, for instance, this was rarely the case in the non-certified communities.

2015 | Marjolein Selten, Verina Ingram, Yuca Waarts, Henk Gilhuis [Read more](#)

Contributing to prototype Digital Farmer Field School for cocoa Sierra Leone

FairMatch Support, a developer of sustainable supply chains, contacted Wageningen University & Research to explore alternatives to conventional certification training courses for cocoa farmers in Sierra Leone. The Ebola outbreak in Sierra Leone meant that gatherings of more than five farmers at a time were not allowed. This urgent situation coincided with a broader debate regarding the assumed effectiveness of the current extension models for farmers producing for the global market. This initiative resulted in the design and development of a prototype Digital Farmer Field School (DFFS) for training in cocoa production and certification, called *Kusheh na minem Fatu, en mi na koko farmer* ('Hello, my name is Fatu and I'm a cocoa farmer'). The testing of the prototype took place in the Kailahun and Kenema Districts in Sierra Leone.

2015 | Verina Ingram, Margriet Goris, Loes Witteveen [Read more](#)

Workshop on sustainability initiatives and certification in cocoa Ghana & Ivory Coast

In June 2013 Wageningen University & Research contributed to the Certification Workshop held by the International Cocoa Organization in Douala, Cameroon. The aim of the workshop was to carry out a comprehensive review of cocoa certification, with a view to building a consensus and making recommendations on the best approach to achieving sustainability in the cocoa sector. The presentation focused on the baseline and impact assessments of UTZ Certification in Ghana and Ivory Coast. The lessons learnt included the observation that certification and supporting initiatives appear to contribute to economic, environmental and social benefits, although attribution is complicated and requires a baseline. Certification is recognised as a means, not an end in itself. Social and economic change can be brought about and measured properly only after at least two to three years. Attributing impacts to any one intervention and organisation is extremely difficult, and indicators need to be pragmatic, scaled and smart.

2013 | Verina Ingram, Yuca Waarts, Giel Ton, Simone van Vugt [Read more](#)

Report on upscaling the impact of sustainability certification initiatives

Ghana, Ivory Coast & Indonesia

Wageningen University & Research contributed in 2013 to a report entitled 'Upscaling the impact of sustainability certification initiatives: Enabling conditions and policy recommendations for regional development'. Sustainability certification is seen by many as an important means to make supply chains more sustainable. Even though there is some robust evidence on the farm-level impacts of certification, and more studies are underway, very little information is available on the regional level impacts of certification initiatives. This study offered recommendations to governments, businesses, standard-setting bodies and civil society organisations to help contribute to improvements in impact.

The study found that initiatives have had both positive and negative impacts on a farm level, but that benefits cannot be compared or generalised. Few regional level impacts had been documented on the environment, the society and the economy in production areas. Little evidence was found on the embedding of certification initiatives in the policy environment, and catalysation of impacts on a regional level, making it difficult to indicate if impacts have been scaled up to a regional level. Certification initiatives, governments, businesses, international organisations and NGOs can create, support and promote upscaling by improving the enabling environment in which producers involved in certification initiatives operate, particularly production systems and market conditions.

2013 | Yuca Waarts, Lucas Judge, Verina Ingram, Johan Brons [Read more](#)

Contribution to a paper on value chains, partnerships and development

Rwanda, Uganda

Partnerships between companies and NGOs that aim to incorporate smallholder farmers into value chains are increasingly being promoted as a way to pursue development goals. The article 'Value chains, partnerships and development: Using case studies to refine programme theories', to which Wageningen University & Research contributed, investigated two case studies of such partnerships in Uganda and Rwanda and the outcomes they achieved in order to refine the rationale underlying such interventions.

The sequence of events within such partnership interventions were documented in the case studies along with their context and the intermediate outcomes, identified as the new rules and practices that generate institutional change. By portraying the configuration of events within a partnership intervention and the contextual factors, these case studies revealed how the interventions produced outcomes within changing contexts, such as changes in market demand, government policy or business strategy. The research approach made it possible to disentangle partnership interventions and contextual processes, and to give participants a firmer idea of the potential and limitations of value chain partnerships to achieve developmental targets.

2013 | Giel Ton, Sietze Vellema [Read more](#)

Impact evaluation methods: improving the theory of change

As part of the impact evaluations of sustainability initiatives in [Ghana](#) and [Ivory Coast](#), Wageningen University & Research worked with partners in UTZ, Cargill, Solidaridad and IDH to retrospectively elaborate the theories of change (also known as impact logics) that drive their sustainable cocoa programmes. This activity contributed to both baseline and impact evaluations in which impact logics were detailed for the above partners and resulted in an academic paper.

2013/2014 | Verina Ingram, Yuca Waarts, Lan Ge, Giel Ton [Read more](#)

Processing & Trade



Conference on Dutch cocoa expertise and knowledge *Worldwide, the Netherlands*

During the [Second World Cocoa Conference](#) in Amsterdam, the project partners including KIT and Wageningen University & Research hosted a Dutch stand where a broad range of knowledge and publications was made available and actors from the cocoa sector had the chance to meet Dutch experts. This included a summary of the [Dutch cocoa sector's work to improve sustainability](#) in the chain. The opportunity was also used to further the development of a strategic research agenda on cocoa and coffee, and present the [findings](#), which were acknowledged in the [Amsterdam Declaration](#). A [short film](#) called Updating Cocoa Stories was introduced by the Dutch Minister for Agriculture Sharon Dijksma during her opening speech on 10 June 2014. The film is a collaboration between Loes Witteveen, Wageningen University & Research, KIT, VHL and Cocobod GAWU.

2014 | Anna Laven, Verina Ingram [Read more](#)

Debate on certification and sustainable food consumption *Worldwide*

This evening debate with representatives from Wageningen University & Research, Change in Choice, UTZ Certified and various NGOs clarified how voluntary certification schemes work using the example of UTZ Certified. This programme, label and independent foundation for sustainable farming worldwide was established in 2002 and develops sustainable agricultural supply chains through certification programmes and traceability services for agricultural commodities. The presenters and audience discussed the scale, extent and impact of voluntary certification, as well as some of the major problems linked to it.

2015 | Verina Ingram [Read more - Facebook](#)

Consumption



Study on fine flavour niche and middle markets in cocoa sector

The Netherlands

The objective of this study was to explore market differentiation and segmentation in the chocolate sector, focusing on the Dutch market. The main findings are that a “middle market” is emerging between conventional and fine flavour chocolate products. This middle market is characterised by high quality, often certified chocolate products, higher prices and a focus on origin sustainability. The emerging middle market offers opportunities for upscaling, by both smaller companies investing in brands and value chain relations, and larger, conventional chocolate manufacturers investing in origin, fine-flavour products and smaller niche brands. The findings of the study were presented by Anna Laven, KIT, at [Chocoa 2016](#) conference in Amsterdam.

2015 | Abdulmalik Matti, Anna Laven, Verina Ingram, Katja Logatcheva [Read more](#)

Report on consumption of certified sustainable cocoa and coffee in the Netherlands

The Netherlands

A study on the availability and application of data for monitoring and estimating the consumption of certified sustainable cocoa and coffee in the Netherlands was conducted by a consortium including Wageningen University & Research. It found that multiple bodies in the Netherlands collect systematic and non-systematic quantitative information about the Dutch cocoa and coffee sectors, and this could be used to measure the sustainable consumption of those sectors’ products in the Netherlands.

The usability and quality of the available data differs between the two sectors. According to the Royal Dutch Coffee and Tea Association (KNVKT), the share of coffee that was certified sustainable in the Dutch market was 40% in 2012. This number was verified by Statistics Netherlands (CBS) in 2013 and is systematically and periodically updated on KNVKT’s website.

In the case of the cocoa chain, the high cost of collection and complexity of the supply chain mean that limited information is available to monitor the results of stakeholder efforts to increase sustainable consumption. Based on professional expert judgements in the cocoa grinding segment, the share of certified sustainable cocoa processed in consumer products sold in the Dutch market was no more than 25% in 2012. The research on the coffee sector was conducted in 2012 with relevant updates in 2013, while the research on the cocoa sector was conducted in 2012 and 2013 with relevant updates in 2014.

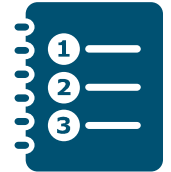
2014 | Katja Logatcheva, Verina Ingram [Read more - report](#); [Read more - blog](#)

Debate on certification and sustainable food consumption *Worldwide*

This evening debate with representatives from Wageningen University & Research, UTZ, Change in Choice and various NGOs clarified how voluntary certification schemes work using the example of UTZ Certified. This programme, label and independent foundation for sustainable farming worldwide was established in 2002 and develops sustainable agricultural supply chains through certification programmes and traceability services for agricultural commodities. The presenters and audience discussed the scale, extent and impact of voluntary certification, as well as some of the major problems linked to it.

2015 | Verina Ingram [Read more - Facebook](#)

Certification & standards



Contributing to cluster analysis of certified cocoa farmers *Ghana & Ivory Coast*

Wageningen University & Research and Kuit Consultancy developed cocoa and coffee farmer typologies (clustering and segmentation) in collaboration with UTZ. The purpose of the research was to identify whether consistent clusters exist among UTZ Certified cocoa farmers, identify the productivity ranges for each profile and then compare the performance of farmers with the same profile within groups, between groups and between countries, with a specific focus on productivity.

The conclusion was that similar clusters can be found in each country with five different types of farmers identified across the two countries: 1) professional investor, 2) sustainability professional, 3) in over my head, 4) right on, and 5) easy does it. Clusters were found to be fairly consistent between countries although deviations in yield do occur and do not correspond to the certificate holder level. Before actionable insights can be designed, there is a need to investigate the reasons that underlie the yield patterns of the different clusters and verify the five groups with partners in each country. Moreover, there is a need to explore to which extent UTZ interventions could be differentiated across these clusters

2015 | Fédes van Rijn, Verina Ingram, Yuca Waarts [More information is available upon request from Fédes van Rijn](#)

Input to ISO-CEN-NEN Sustainable Cocoa Standard *Worldwide*

Wageningen University & Research and KIT were invited to join the NEN Sustainable Cocoa Standard Committee as research organisations. The Netherlands is one of the largest cocoa importing nations and closely involved in the development of the ISO via the NEN Cocoa Standard Committee with experts from the industry, interest groups, government, academics, trade unions and private standardisation organisations. The international standard will be developed in keeping with the three well-known principles for sustainability: People, Planet and Profit. Both institutes provided input for various drafts of the standard in 2015 and early 2016.

2015-2016 | Verina Ingram, Yuca Waarts, Fédes van Rijn, Kees Burger, Enrique Uribe Leitz, Anna Laven [More information is available upon request from Verina Ingram](#)

Data sources for explaining monitoring and evaluation results *Worldwide*

This Wageningen University & Research factsheet identifies data sources which help explain monitoring and evaluation results. It presents publicly available data sources that can be used to find information about factors that may influence the implementation and outcomes of activities by UTZ Certified farmers and partners.

2014 | Yuca Waarts, Fédes van Rijn; Verina Ingram, Gerdien Meijerin, Don Jansen, Michiel Kuit, Hendrik Boogaard [Read more](#)

Scanning the evidence about the implementation of certification *Worldwide*

A quick scan was carried out under the auspices of Wageningen University & Research of literature on the noteworthy and actual ways in which certification operates and their impact. Concrete information on how certification programmes, projects or initiatives are implemented in the field is very scarce in the public domain. Activities are often mentioned in general without any specific data on how such training was set up, organised, who did the implementing, how many farmers were included in separate training courses, fall out & success rates, etc.

More information is available for coffee and cocoa certification, although this still does not always contain the kind of detail required to assess how these activities may have had an impact (the theory of change or intervention logic). This is despite the fact that such details are a requirement of ISEAL Alliance Credibility Principles 1, a set of core principles that underpin the effective operation of voluntary standards systems. To assess how programmes influence outcomes at the farmer level, organisations that fund and implement certification initiatives can make information available on exactly how such initiatives are implemented in the public domain.

2014 | Yuca Waarts, Verina Ingram, Olga van der Valk [Read more](#)



Sustainable
coffee chain

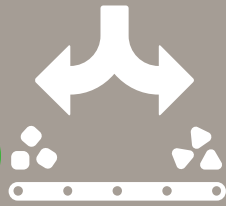
Sustainable coffee chain



Entire chain



Production



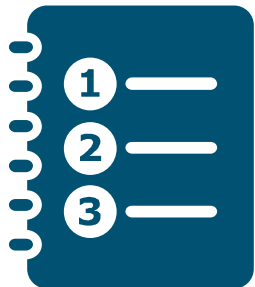
Processing



Trade



Consumption



Certification & standards

The overall chain



Costs and benefits of certification *Worldwide*

This research by Wageningen University & Research and Kuit Consultancy examined the costs, benefits and impacts of certification and verification schemes on smallholder coffee, cocoa, cotton and fruit & vegetable farmers and their livelihoods. It includes a literature review and break-even analyses.

2014 | Yuca Waarts [Read more](#) | [Chocoa](#) | [CocoaConnect](#)

Contribution to ISEAL Research webinar series *Worldwide*

Making international supply chains more sustainable is one of the ways in which rural development can be boosted for smallholders. One very crucial question customers and society at large are facing is: what differences do standards make? An ISEAL webinar on the impact of sustainability standards on smallholders was held on 7 April 2016. It presented evidence from a range of research and evaluation studies that have been conducted in the banana, cocoa, coffee, tea and avocado supply chains to answer this question. The team from Wageningen University & Research also shared their insights on the methodology and design principles that they think are needed to guide impact evaluations in this field of work.

2016 | Fédes van Rijn, Yuca Waarts [Read more](#)

Smallholder performance measurement report *Worldwide*

Wageningen University & Research contributed its time, knowledge and expertise to a report entitled 'Towards a shared approach for smallholder performance measurement'. This presents a framework of indicators for measuring farm-level sustainability in smallholder agricultural supply chains. These indicators are proposed primarily in the context of performance measurement, but can also be useful for more in-depth impact evaluation studies. The proposal does not aim to produce a single common set of indicators, but rather to use the same indicators when asking the same types of questions at the farm and household level. The authors argue that using the same indicators when asking the same questions in smallholder supply chains will increase comparability across data collection efforts and ensure that the community is building on a common understanding of how to gather credible, affordable and useful data in smallholder chains.

2016, Verina Ingram, Simone van Vugt, Yuca Waarts [Read more](#)

Scientific article on impact monitoring experiences and methods Worldwide

Sustainability standards and certification schemes promoted as a market-driven instrument for realising development impacts receive public funding. As a result, companies, NGOs and supporting donors and government agencies want to know if their ambitions have been fulfilled. The tendency is to commission household surveys to assess the net effects of certification in areas such as poverty, productivity and food security.

In 2014, scientists from Wageningen University & Research contributed an article entitled 'The triviality of measuring ultimate outcomes: Acknowledging the span of direct influence'. Funded by the project, this study argued that, rather than trying to measure precise net effects on farmer income, research should focus on detailed measurements of more immediate outcomes in terms of knowledge and the implementation of good agricultural practices.

Contribution analysis was proposed as an overall approach to verify the theory of change, combining survey-based net-effect measurement of these immediate and intermediate outcomes with less precise, lean monitoring of indicators to verify the contributory role of outcomes that are outside the span of direct influence, such as household income and poverty alleviation.

2014 | Giel Ton, Lan Ge, Sietze Vellema [Read more](#)

Developing a strategic research agenda for sustainable coffee and cocoa Worldwide

This Wageningen University & Research project in 2014 culminated in the presentation of the results of a survey to develop strategic research agendas for sustainable cocoa and coffee, both in Wageningen and internationally. Research into coffee and cocoa is currently carried out by a large number of organisations, with different objectives, modes of financing and levels of openness and willingness to share methodologies and results. Much of their research addresses concerns about the availability of sufficient volumes of coffee and cocoa of desired quality, which in turn leads to concerns about productivity, farmer livelihoods, climate change adaptation, pest & disease control and the like.

There is a clear need to improve the efficiency of the research process and exchange of results due to the presence of gaps and overlaps, as well as the use and dissemination of its results. The priority research themes to emerge were: 1. Vulnerability and productivity, 2. Diversity and sustainability of production, 3. Market transformation and transparency, 4. Quality and new business models, and 5. Service delivery and concerted action.

Project partners have since collaborated with ICCO, the World Cocoa Foundation and COPAL to inventory the cocoa research community, including a LinkedIn [International Cocoa Researchers Group](#), meetings at the Third World Cocoa Conference and the [ECA Cocoa Conference](#) in 2016, and plans for a dedicated international cocoa research event in 2017.

2014, 2016 | Verina Ingram, Don Jansen, Lucas Judge [Read more](#) [Read more: PDF](#)

Production



Strengthening the service provision of farmer organisations *Uganda*

The DE Foundation and IDH were interested in improving access to services for smallholder coffee farmers in Uganda through the transformation and involvement of mills and traders in service centres. A scoping study was launched to gain a better understanding of the feasibility of a project in this field. Wageningen University & Research provided support by giving input to developing terms of reference, focusing on missions and reviewing draft reports.

The objective of the assignment was to assess the financial feasibility and the prerequisites for transforming mills into service centres, to establish the financial needs of the target coffee farmers, to examine the manner in which the service centres or producer organisations can become effective intermediaries for financing coffee collection from farmers, and to look at the financial services which already exist in the target area.

2015 | Don Jansen [More information is available upon request from Fédés van Rijn](#)

Scoping study on non-financial services provision among smallholder coffee farmers *Uganda*

Wageningen University & Research contributed to a scoping study on the potential for non-financial services delivery among traders' and farmers' associations which was carried out during January, February and May 2015. The study involved active participation by smallholder coffee farmers and their leaders, coffee middlemen, traders, input suppliers, UCDA and UCFA. The study findings indicate that there is potential for non-financial services delivery mainly in the following areas: coffee production, harvesting, postharvest handling, marketing and profits, farmer land and coffee acreage, farmer relationships with coffee value chain actors, food and nutritional security, and other crops.

2015 | Don Jansen [More information is available upon request from Fédés van Rijn](#)

Study on sustainable coffee production Vietnam

Partly funded by the project, the Sustainable Coffee Conundrum study investigated the effects, cost and benefits of various implementation modalities of UTZ certification on sustainable coffee production in Vietnam. Particular attention was paid to the role of implementation modalities in the report. A workshop was organized in Buon Ma Thuot in collaboration with the DE Foundation (one of the partners who commissioned the study) and the Sustainable Trade Initiative to discuss the findings with representatives from the Vietnamese coffee sector. A second recent study commissioned by the Sustainable Trade Initiative and implemented by Technoserve was also discussed. This study purported to investigate the business case for sustainable production in Vietnam.

The objectives of the workshop were to reflect on the findings of the Sustainable Coffee Conundrum with a representative body of stakeholders from the Vietnamese coffee sector; reflect on the findings of the IDH Technoserve coffee sector study; and solicit input from stakeholders on possible ways to address the two main sustainability challenges that were identified in the study and reflect on the role certification standards could play.

2013 | Fédes van Rijn, Don Jansen [Read more](#)

Contribution to development of living income methodology Worldwide

Insight into the sustainability of the coffee and cocoa sector requires defining and measuring a living income. The development of the living income methodology comprises three themes. The first is building on the ISEAL Global Living Wage Coalition's work to establish a common methodology for Living Wage Benchmarks; the second focuses on how different organisations assess actual farmer and household incomes through farmer surveys, baseline studies, and secondary data. A parallel topic is various modelling approaches to understanding the relative impact on household net income of changes in key variables such as productivity, decreased cost of inputs, farm size and crop diversification.

Wageningen University & Research scientist Verina Ingram joined part of the ISEAL Alliance's living wage training in May 2015 and the living income workshops in February and May 2015, as well as webinars in October, November and December, all with the aim of jointly developing a living income methodology.

2016 | Verina Ingram [Read more](#)

Living Wage and Living Income methodology Worldwide

The Living Wage Income Methodology builds on the ISEAL Global Living Wage Coalition's work to establish a common methodology for Living Wage Benchmarks. The Coalition assesses how different organisations measure actual farmer and household incomes through farmer surveys, baseline studies and secondary data. A parallel topic are various modelling approaches to understanding the relative impact on household net income of changes in key variables such as productivity, decreased cost of inputs, farm size and crop diversification. Wageningen University & Research's Verina Ingram contributed to the aim of jointly developing a living income methodology in 2015 during the living wage training, the living income workshops and various webinars.

2016 | Verina Ingram [Read more](#)

Article on upscaling services to cocoa and coffee farmers *Worldwide*

Many smaller coffee and cocoa farmers are struggling to keep their heads above water. To improve their living conditions and make cultivation more environmentally friendly, targets related to sustainable production have been set in the Netherlands. One way to reach these targets is by upscaling and improving related services. This case study by Wageningen University & Research looked into the types of services which can be distinguished, the effect of the various types of services, and the ways in which these services can be upscaled by examining 41 international and local traders and cooperatives to cocoa and coffee farmers in Ivory Coast, Ghana, Cameroon, Indonesia, Nicaragua, Costa Rica and Honduras.

Four different models were found to be commonly used: cooperative, franchise, public and captive. The delivery of services can be detached from obligations to buy beans and still result in benefits to farmers, cooperatives and buyers. All models appear to result in a more consistent and higher bean supply for the provider, improved quality, increased certification levels and better access to markets, with no model emerging as the most beneficial. Whether farmers are grouped and, if so, the size of the group appear to be important factors for effective delivery, with groups of between 28 to 35 farmers being the preferred option. The average period for investments is three years and ensuring their continuity through long-term investments in service delivery was shown to be important.

2014 | Verina Ingram, Anna Laven, Fédes van Rijn, Lucas Judge, Don Jansen and Marije Boomsma [Read more](#)

Contributing to ISEAL Alliance session on sustainability *Worldwide*

Voluntary sustainability standards are one of many different initiatives which aim to improve the livelihoods of smallholder farmers. While the body of evidence on the impact of standards on farmers continues to grow, the question arises as to whether standards are sufficient on their own. How are standards being adjusted and how are other supply chain actors changing their thinking about the actions, actors, and collaboration needed to make a difference for farmers? Wageningen University & Research scientist Verina Ingram took part in the ISEAL Alliance Impacts Challenge session in 2015, which concluded that impact evaluations have been useful for both management and learning purposes.

2015 | Verina Ingram [Read more](#)

Case study on upscaling services to coffee and cocoa farmers *Worldwide*

Many smaller coffee and cocoa farmers are struggling to keep their heads above water. To improve their living conditions and make cultivation more environmentally friendly, targets related to sustainable production have been set in the Netherlands. One way to reach these targets is by upscaling and improving related services. This case study by Wageningen University & Research looked into the types of services which can be distinguished, the effect of the various types of services, and the ways in which these services can be upscaled.

2014 | Verina Ingram, Fédes van Rijn, Lucas Judge [Read more](#) (in Dutch) or contact [Verina Ingram](#)

Report on upscaling the impact of sustainability certification initiatives

Ghana, Ivory Coast & Indonesia

Wageningen University & Research contributed in 2013 to a report entitled 'Upscaling the impact of sustainability certification initiatives: Enabling conditions and policy recommendations for regional development'. Sustainability certification is seen by many as an important means to make supply chains more sustainable. Even though there is some robust evidence on the farm-level impacts of certification, and more studies are underway, very little information is available on the regional level impacts of certification initiatives. This study offered recommendations to governments, businesses, standard-setting bodies and civil society organisations to help contribute to improvements in impact.

The study found that initiatives have had both positive and negative impacts on a farm level, but that benefits cannot be compared or generalised. Few regional level impacts had been documented on the environment, the society and the economy in production areas. Little evidence was found on the embedding of certification initiatives in the policy environment, and catalysation of impacts on a regional level, making it difficult to indicate if impacts have been scaled up to a regional level. Certification initiatives, governments, businesses, international organisations and NGOs can create, support and promote upscaling by improving the enabling environment in which producers involved in certification initiatives operate, particularly production systems and market conditions.

2013 | Yuca Waarts, Johan Brons, Verina Ingram [Read more](#)
[Read more](#)

Contribution to value chains, partnerships and development paper

Rwanda, Uganda

Partnerships between companies and NGOs that aim to incorporate smallholder farmers into value chains are increasingly being promoted as a way to pursue development goals. The article 'Value chains, partnerships and development: Using case studies to refine programme theories', to which Wageningen University & Research contributed, investigated two case studies of such partnerships in Uganda and Rwanda and the outcomes they achieved in order to refine the rationale underlying such interventions.

The sequence of events within such partnership interventions were documented in the case studies along with their context and the intermediate outcomes, identified as the new rules and practices that generate institutional change. By portraying the configuration of events within a partnership intervention and the contextual factors, these case studies revealed how the interventions produced outcomes within changing contexts, such as changes in market demand, government policy or business strategy. The research approach made it possible to disentangle partnership interventions and contextual processes, and to give participants a firmer idea of the potential and limitations of value chain partnerships to achieve developmental targets.

2013 | Giel Ton, Sietze Vellema [Read more](#)

Processing & Trade



Debate on certification and sustainable food consumption *Worldwide*

This evening debate with representatives from Wageningen University & Research, Change in Choice, UTZ Certified and various NGOs clarified how voluntary certification schemes work using the example of UTZ Certified. This programme, label and independent foundation for sustainable farming worldwide was established in 2002 and develops sustainable agricultural supply chains through certification programmes and traceability services for agricultural commodities. The presenters and audience discussed the scale, extent and impact of voluntary certification, as well as some of the major problems linked to it.

Consumption



Monitoring the Dutch letters of intent for coffee and cocoa Worldwide

A study on the availability and application of data within the framework of monitoring and estimating the consumption of certified sustainable cocoa and coffee in the Netherlands was conducted by a consortium including Wageningen University & Research. It found that there are multiple bodies in the Netherlands which collect systematic and non-systematic quantitative information about the Dutch cocoa and coffee sectors, and could be used to measure the sustainable consumption of those sectors' products in the Netherlands.

The usability and quality of the available data differs between the two sectors. According to the Royal Dutch Coffee and Tea Association (KNVKT), the share of coffee that was certified sustainable in the Dutch market was 40% in 2012. This number was verified by Statistics Netherlands (CBS) in 2013 and is systematically and periodically updated on KNVKT's website.

In the case of the cocoa chain, the high cost of collection and complexity of the supply chain mean that there is limited information that can be used to monitor the results of the stakeholders' efforts to increase sustainable consumption.

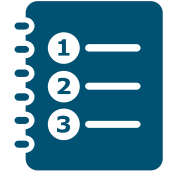
Based on professional expert judgements in the cocoa grinding segment, the share of certified sustainable cocoa processed in consumer products sold in the Dutch market was no more than 25% in 2012. The research on the coffee sector was conducted in 2012 with relevant updates in 2013, while the research on the cocoa sector was conducted in 2012 and 2013 with relevant updates in 2014.

2014 | Katja Logatcheva, Verina Ingram [Read more - report](#) | [Read more - blog](#)

Debate on certification and sustainable food consumption Worldwide

This evening debate with representatives from Wageningen University & Research, Change in Choice, UTZ Certified and various NGOs clarified how voluntary certification schemes work using the example of UTZ Certified. This programme, label and independent foundation for sustainable farming worldwide was established in 2002 and develops sustainable agricultural supply chains through certification programmes and traceability services for agricultural commodities. The presenters and audience discussed the scale, extent and impact of voluntary certification, as well as some of the major problems linked to it.

Certification & standards



Data sources for explaining monitoring and evaluation results *Worldwide*

This Wageningen University & Research factsheet identifies data sources which help explain monitoring and evaluation results. It presents publicly available data sources that can be used to find information about factors that may influence the implementation and outcomes of activities by UTZ Certified farmers and partners.

2014 | Yuca Waarts, Fédes van Rijn; Verina Ingram, Gerdien Meijerin, Don Jansen, Michiel Kuit, Hendrik Boogaard [Read more](#)

Scanning the evidence about the implementation of certification *Worldwide*

A quick scan was carried out under the auspices of Wageningen University & Research of literature on the noteworthy and actual ways in which certification operates and their impact. Concrete information on how certification programmes, projects or initiatives are implemented in the field is very scarce in the public domain. Activities are often mentioned in general without any specific data on how such training was set up, organised, who did the implementing, how many farmers were included in separate training courses, fall out & success rates, etc.

More information is available for coffee and cocoa certification, although this still does not always contain the kind of detail required to assess how these activities may have had an impact (the theory of change or intervention logic). This is despite the fact that such details are a requirement of ISEAL Alliance Credibility Principles 1, a set of core principles that underpin the effective operation of voluntary standards systems. To assess how programmes influence outcomes at the farmer level, organisations that fund and implement certification initiatives can make information available on exactly how such initiatives are implemented in the public domain.

2014 | Yuca Waarts, Verina Ingram, Olga van der Valk [Read more](#)

Specialists

From 2012 the overall project was managed by Dr. Sietze Vellema and Dr. Don Jansen, from 2013 by [Dr. Verina Ingram](#) and Dr. Don Jansen, with [Dr. Fédés van Rijn](#) taking over the reins in early 2016. Verina and Fédés can be contacted for further information. Other specialists for Wageningen University & Research and partners involved were:

Hendrik Boogaard
Johan Brons
Kees Burger
Dave Boselie (IDH)
Lan Ge
Henk Gilhuis (UTZ)
Margriet Goris
Karin de Grip
Don Jansen
Lucas Judge
Anna Laven (KIT)
Marje Boomsma (KIT)
Tessa Laan (UTZ)
Pieter Konijn (UTZ)
Kristen Komives (ISEAL Alliance)
Vidya Rangan (ISEAL Alliance)

Jenny Kwan (IDH)
Marg Leijdens (UTZ)
Katja Logatcheva
Abdulmalik Matti
Gerdien Meijerink
Stefanie.Miltenburg (Douwe Egberts Foundation)
Jonas Mva Mva (IDH)
Lucian Peppelenbos (IDH)
Ted van der Put (IDH)
Marjolijn Selten
Francois Ruf (CIRAD)
Giel Ton
Enrique Uribe Leitz
Olga van der Valk
Sietze Vellema
Simone van der Vugt
Yuca Waarts
Loes Witteveen
Marcel Vernooij (Ministry of Economic Affairs)
Lucie Wassink (Ministry of Economic Affairs)
Alex Bruijnis (Ministry of Economic Affairs)

Colophon

Wageningen University & Research, Den Haag, November 2016

Wageningen University & Research
Alexanderveld 5
2585 DB Den Haag

T +31 (0)70 335 83 30

F +31 (0)70 361 56 24

E fedes.vanrijn@wur.nl

www.wur.eu

Authors

Fédes van Rijn (Wageningen University & Research)

Verina Ingram (Wageningen University & Research)

Text editing

Andrew Rogers (Writewell Quality Text)

Jan Hugo Nuijt (Wageningen University & Research)

Design

MediaCenter Rotterdam

Photography

Shutterstock.com

This project was made possible by the financial support of the Dutch Ministry of Economic Affairs within the context of the 'Improving the sustainability of Dutch cocoa and coffee imports: Synergy between practice, policy and knowledge' research theme of the Policy Support (project number BO-27.04-001-009)

This publication can be downloaded at <http://dx.doi.org/10.18174/399093>.

The mission of Wageningen University and Research is "To explore the potential of nature to improve the quality of life". Under the banner Wageningen University & Research, Wageningen University and the specialised research institutes of the Wageningen Research Foundation have joined forces in contributing to finding solutions to important questions in the domain of healthy food and living environment. With its roughly 30 branches, 5,000 employees and 10,000 students, Wageningen University & Research is one of the leading organisations in its domain. The unique Wageningen approach lies in its integrated approach to issues and the collaboration between different disciplines.